



HORIZON 2020

**The European Union's
programme for Research
and Innovation**

Open to the world!



The European Union

500 million people - 28 countries - a single market*



- 7% of the World's population
- 24% of world's investment in research
- 32% of high-impact publications
- 32% of patent applications

 Member states of the European Union
 Candidate and potential candidate countries

***Free movement of people, goods, services and capital**

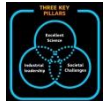
WHAT IS HORIZON 2020?

- A €80 billion research and innovation funding program (2014 -2020)
- A response to economic crisis by investing in future jobs and growth
- It addresses people's concerns about their livelihoods, safety and environment



The Framework Programme for Research and Innovation 2014-2020





Excellent science

- ***European Research Council***

Supporting top researchers from anywhere in the world to work in Europe

- ***Future and Emerging Technologies***

Supporting visionary thinking through collaborations between science and engineering

- ***Marie Skłodowska-Curie actions***

Providing opportunities for training and career development of individual researchers

- ***Research infrastructures- including e-infrastructure***

Ensuring access to world-class facilities



Industrial leadership

- ***Leadership in enabling and industrial technologies***
Emphasising key technologies in areas such as advanced manufacturing, microelectronics, nanotechnology, biotechnology, ICT and space





Societal challenges

- **Health, demographic change and wellbeing**
- **Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy**
- **Secure, clean and efficient energy**
- **Smart, green and integrated transport**
- **Climate action, environment, resource efficiency and raw materials**
- **Inclusive, innovative and reflective societies**
- **Secure societies**

Secure, Clean and Efficient Energy

Energy Efficiency

*Competitive
low-carbon energy*

Smart cities
and communities



The challenge: to make the European energy system **clean, secure and efficient**, while ensuring **EU industrial leadership** in low-carbon energy technologies.

The aim: to develop, and accelerate the time to market of, **affordable, cost-effective and resource-efficient** technology solutions to **decarbonise the energy system** in a sustainable way, **secure energy supply** and complete the energy internal market.

H2020 – Expected Impacts

R&D and Innovation Actions

- **Bringing costs down:** increasing performance, reliability and lifetime; decreasing cost of production, installation, operation and maintenance
- **Reducing** life-cycle **environmental impact**
- Help EU **energy security**
- Making renewable electricity generation **more predictable and grid friendly**, enabling variable output sources on the grid
- Increase attractiveness of renewable heating and cooling technologies: improving **cost-efficiency and reliability, reducing complexity**
- Nurturing the development of industrial capacity to produce components and systems, opening of new opportunities
- **Strengthening EU industrial technology base**, creating growth and jobs
- **Impact on global climate and energy challenges**

EU's core policy instrument for RE technologies

Strategic Energy Technology (SET) Plan:

- *instrumental in advancing the deployment of low carbon technologies & their market take-up, together with MSs.*
- *its core strategy is to deliver on the energy challenge; it provides the reference point for EU, national, regional and private investments in energy R&I;*

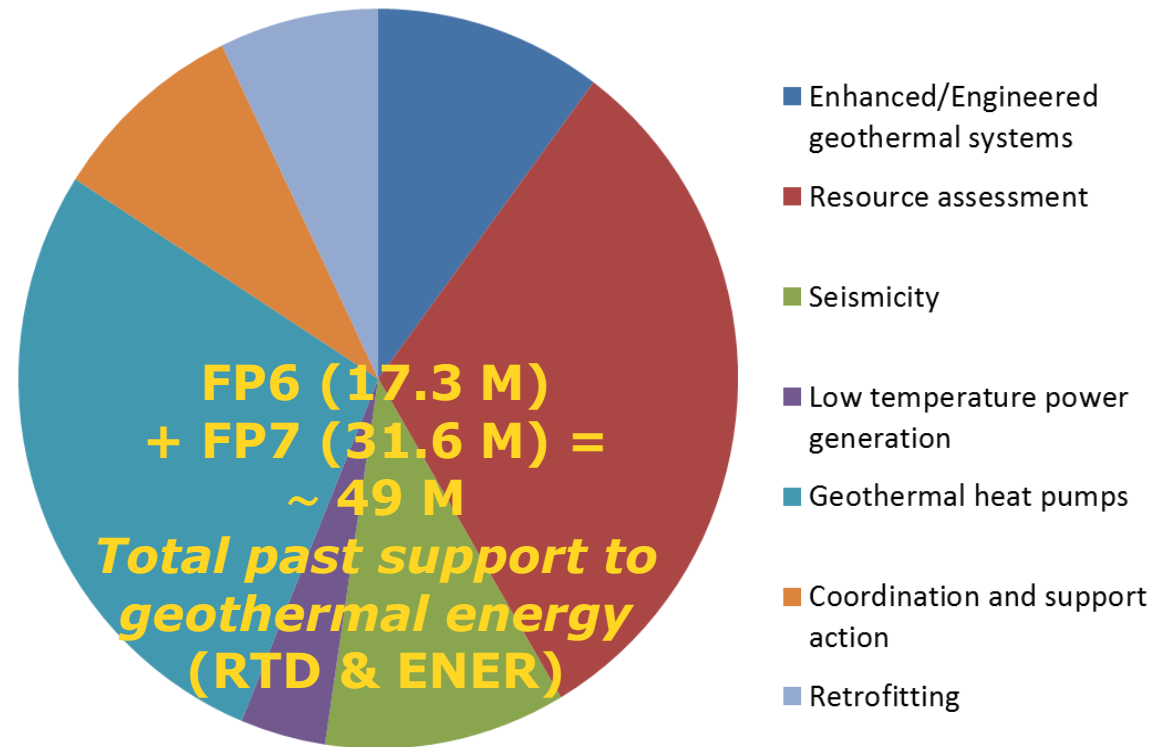


EU (*past and future*) financial support

*FP6, FP7
Intelligent Energy
Europe Programme
NER 300*

EIB (RSFF)

Horizon 2020



FP7 PROJECTS

GEISER (Eligible costs: € 3.8 M
EU contribution: € 2.7 M) -
Geothermal Engineering Integrating
Mitigation of Induced Seismicity in
Reservoirs – [Just finished]

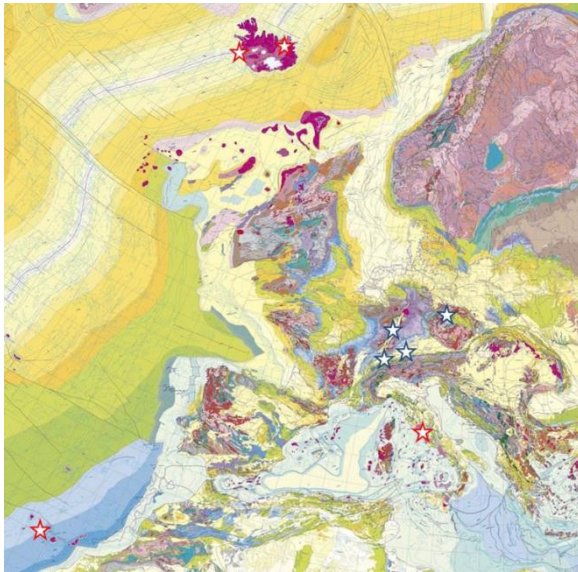
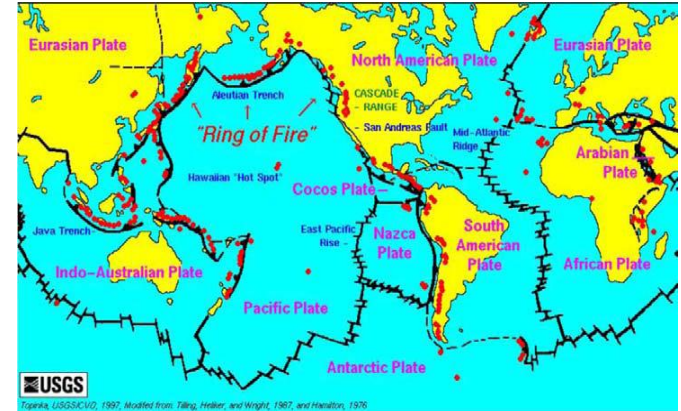


IMAGE (Eligible costs: € 13.3 M
EU contribution: € 10 M) - Integrated
Methods for Advanced Geothermal
Exploration – [Just started – 4 yrs]



***FP7 collaborative research:
CELAC participation***

In total 707 participations from CELAC* in 308 projects

Total EC commitment: 95 million Euro

+

**Over 600 reserachers from CELAC funded by MC actions
(incl. return grants)**

+

**Almost 6000 IRSIS staff exchange scheme short term
visits (both ways)**

** Including Caribbean OCT*

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***FP7 collaborative research:
CELAC participation***

**Interesting observation:
over half of the projects have more than one
CELAC participant**



**EU funded projects enhance also the intra-CELAC
cooperation: structuring effect**

HORIZON 2020: Open to the world

GENERAL OPENNESS



Horizon 2020 is open to participation of researchers from **anywhere in the world**, to:

- ✓ Extend the frontiers of scientific knowledge
- ✓ Tackle challenges that affect us all
- ✓ Make industries more competitive



HORIZON 2020: Open to the world

1. General Opening:

- Any project can include international partners

2. Targeted opening

- In certain topics, international partners may be encouraged or required

3. Coordinated calls; programme level cooperation

- In specific actions (e.g. identified in joint steering committees). Paired calls, linked evaluations, two contracts



EU-CELAC Summits

▪
▪

Madrid 2010

Focus on Science cooperation

"Madrid Action Plan" with six areas of activity

The first on S&T cooperation

Santiago 2013

"Santiago Action Plan", two areas added

Brussels 2015

Revision of the Action Plan

Senior Officials Meetings (SOM)

Brussels 2011

Initiation of the JIRI

Establishment of 4 thematic and 1 horizontal WGs

Concepción 2012

First reports from the WGs

Suggestion for a funding agencies' meeting

Brussels 2012

Funding agencies M.

Brussels 2013

One additional WG established

Follow-up on the progress in the WGs

Costa Rica 2014

First discussion on joint call topics

Tenerife 2014

Funding agencies M.

EU 2015

EU-CELAC Summits
(Madrid 2010; Santiago 2013; Brussels 2015)

Mandate

Report

Senior Officials Meetings (SOM)
(Bru 2011; Concepción 2012; Bru 2013; Costa Rica 2014)

Mandate

Report

JIRI Working Groups

KBBE

ICT

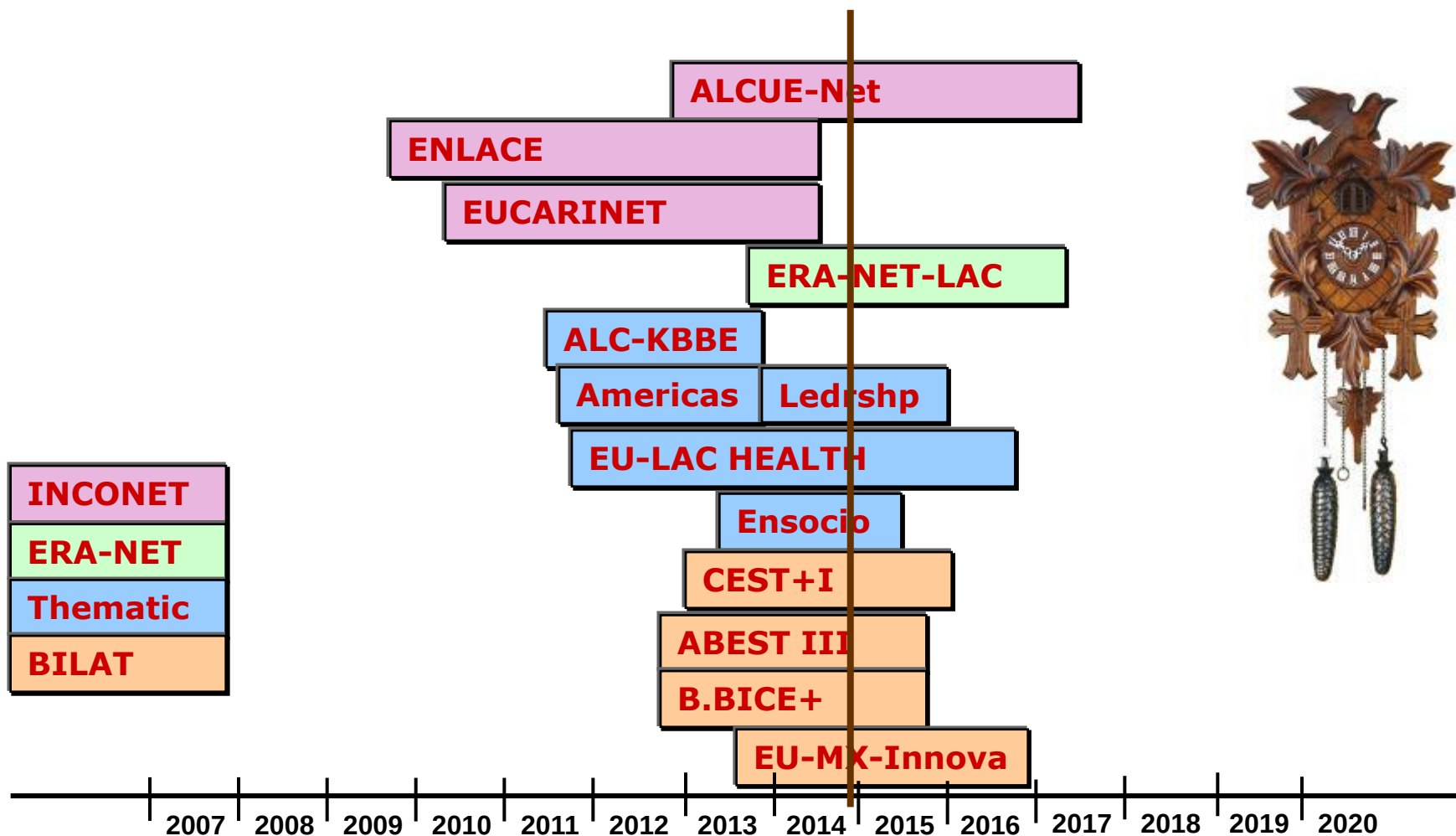
Biodiv+CC

Energy

Health

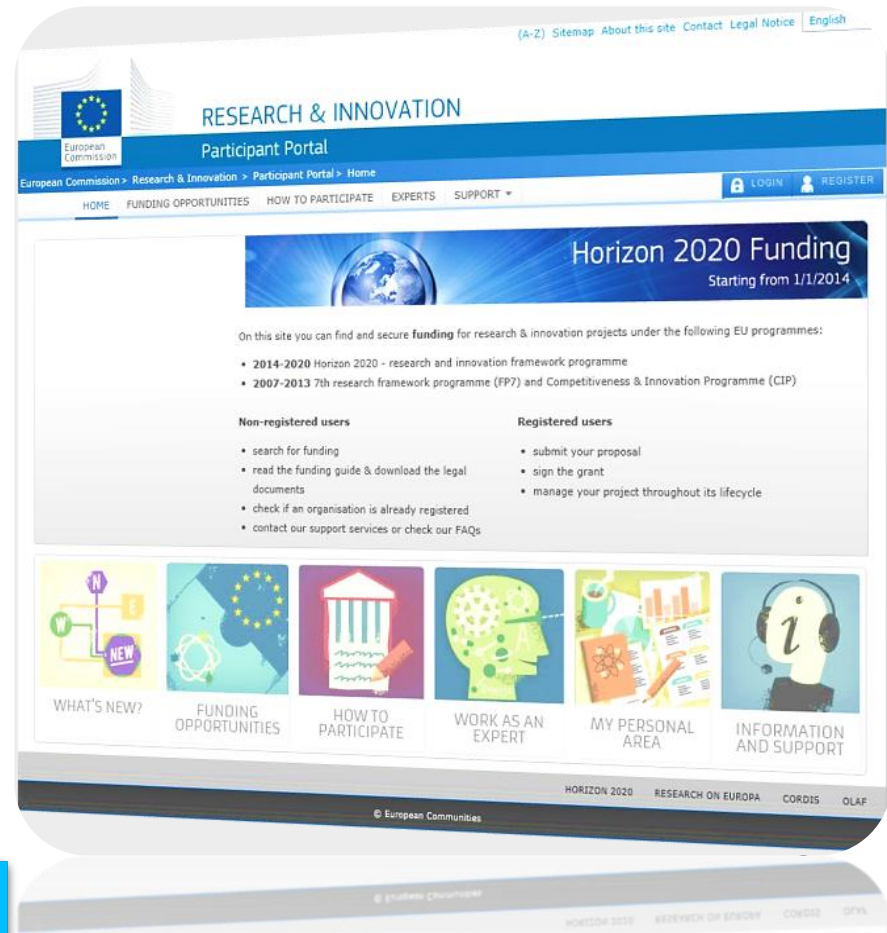
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Projects supporting the JIRI



Where to find more information?

- **Horizon 2020 Participant Portal**
Research and Innovation
European Commission
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>
- **Horizon 2020**
European Commission
<http://ec.europa.eu/programmes/horizon2020/>
- **Incontact** (NCP's network)
http://www.ncp-incontact.eu/nkswiki/index.php?title=Main_Page



FP Cooperation

Together We Can Reach Higher !



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<http://ec.europa.eu/research>

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